



Memorandum

City of Auburn
Public Works Department

ATTACHMENT 5

To: Auburn Planning Commission
From: Jack Warren, City Engineer
Date: February 8, 2011
Subject: Baltimore Ravine Specific Plan Access Review

As requested by the Planning Commission, I have gathered some data on street grades, maintenance costs, intersection improvements and other miscellaneous items related to the alternative access options for the Baltimore Ravine Project.

Street Grades

Alternatives 4 and 5 on the January 27, 2011 Site Access Alternatives exhibit prepared for the Planning Commission both use a maximum grade of 15% in order to depict a road with the best fit to the existing terrain with a grade that is navigable although difficult. The City has allowed grades of 15% from time to time for some subdivisions including the Hidden Creek subdivision off Blocker Drive (with a grade of 14.4%) and the Canyon Rim Estates subdivision with a similar grade for a short stretch. By way of comparison, the grade on Auburn Folsom Road between Indian Hill Road and Sunrise Ridge Circle (Vintage Oaks subdivision) is 6% to 7%. Cal Trans Freeways usually use a maximum grade of 5%. Auburn tries to limit the use of 15% grades to driveways, but there are exceptions and no strict rule and combining a steep grade with a sharp curve would not be welcome.

Maintenance

The average cost per mile to maintain a City Street in Auburn roughly \$13,000 per year. The suggested alternatives both include substantial structures and deep fills which would not be typical and will cost more than the average. The Alternatives are both about a mile long compared to the Herdal Drive access, which is about one fourth of that. Also, safety lighting along sharp curves and under bridges would probably be included in either alternative, adding to the maintenance burden.

Intersection Improvements

The connection to Auburn Folsom Rd at either location would require a three-way or a four-way signal set and some widening to accommodate turning movements, and would be similar to the signal improvements for the Herdal-Auburn Folsom intersection.

Recommendations

In a comparison of Alternatives 4 and 5, the preferred alternative would be Alternative 4. There is little to no appreciable difference between the two alternatives in regards to the issues above, however, Alternative 4 would use an existing signalized intersection, so there would be one less signal on Auburn Folsom Road. Alternative 4 also has a better alignment since it does not have the 90-degree turn on the north side of the UP rail line that Alternative 5 has.

In comparison of Alternatives 4, 5, and the Herdal access, the Herdal extension is the recommended access. The Herdal access has existing right-of-way, is the most direct access, and has typical road grades. In addition, it would not require significant intersection improvements or potentially burdensome maintenance costs.